

### **REMARKS**

Prior to entry of the present amendment, claims 1-28 are pending in the subject application. Claim 21 has been amended to more clearly recite the present invention. Claims 22 and 24-28 have been amended for consistency with amended claim 21. Claims 1, 11 and 21 are independent.

Applicants appreciate the Examiner's acknowledgement of applicants' claim for foreign priority and receipt of a certified copy of the priority document.

Applicants further appreciate the Examiner's acceptance of the drawings filed on March 10, 2004.

Applicants additionally appreciate the Examiner's consideration of an Information Disclosure Statement filed March 10, 2004.

Claims 1-28 are presented to the Examiner for further prosecution on the merits.

#### **A. Introduction**

In the Office action dated May 27, 2005, the Examiner rejected claims 1-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,815,681 to Kim et al. ("the Kim et al. reference"), rejected claims 21-22 and 24-28 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 2003/0091257 to Chakrabarti et al. ("the Chakrabarti et al. reference") and rejected claims 21-23 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,900,367 to Gergis ("the Gergis reference").

#### **B. Asserted Double Patenting Rejection**

In the outstanding Office action, the Examiner rejected claims 1-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of the Kim et al. reference. This rejection is respectfully traversed for at least the reasons set forth below.

The configuration of the Kim et al. reference is discussed in paragraph [0002] of the original specification, including problems associated with using the metal film of the Kim et al. reference. Both independent claims, viz., claims 1 and 18, of the Kim et al. reference recite this metal. An aspect of the present invention is directed to replacing the metal with a semiconductor, as in paragraph [0052] of the original specification. It is respectfully submitted that, absent the teachings of the present invention, it would not have been obvious to one of ordinary skill in the art to replace the metal of the Kim et al. reference with a semiconductor as recited in claims 1-20.

Therefore, it is respectfully submitted that claims 1-20 are patentably distinct from claims 1-30 of the Kim et al. reference. Therefore, it is respectfully requested that this rejection be withdrawn.

C. Asserted Obviousness Rejections

In the outstanding Office action, the Examiner rejected claims 21-22 and 24-28 under 35 U.S.C. § 103(a) as being unpatentable over the Chakrabarti et al. reference and rejected claims 21-23 under 35 U.S.C. § 103(a) as being unpatentable over the Gergis reference.

Independent claim 21 has been amended in order to more clearly recite the present invention. In particular, claim 21 now recites, in part, "preparing a patterned mask of a semiconductor material, the semiconductor material being sufficiently thick in desired portions to prevent electrons emitted by the pyroelectric plate during heating from being further transmitted." It is respectfully submitted that neither the Chakrabarti et al. reference, directed to an optical waveguide, nor the Gergis reference, directed to a detector, disclose or suggest the present invention as now recited in claim 21.

The remaining rejected claims depend from claim 21, and are believed to be allowable for at least the reasons set forth above. Therefore, it is respectfully requested that these rejections be withdrawn.

D. Conclusion

Since the prior art references relied upon do not render obvious, much less anticipate, the subject invention as presently claimed, applicant respectfully submits that claims 1-28 are now in condition for allowance, and a notice to that effect is respectfully requested.

The remaining prior art references cited by the Examiner have not been relied on to reject the claims. Therefore, no comments concerning these documents are believed necessary at this time.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

Date: August 17, 2005

  
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**PETITION and**  
**DEPOSIT ACCOUNT CHARGE AUTHORIZATION**

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.